

**An Archaeological
Evaluation.
River Sow Improvement
Scheme,
Stafford, 2002**

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**An Archaeological Evaluation.
The River Sow Improvement Scheme,
Stafford, 2002**

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**River Sow Improvement Scheme
The Mill, Mill Bank, Victoria Park, Stafford, Staffordshire
Archaeological Evaluation 2002**

Summary

An archaeological evaluation was carried out along the line of a culvert running from a landscape pool in Victoria Park, through the disused water mill in Mill Bank, Stafford and into the River Sow to the east of the mill (NGR SK 921 229). The evaluation consisted of four test pits and two trial trenches aimed to determine the extent of any archaeological deposits. The work was carried out in July and August 2002 by Birmingham University Field Archaeology Unit (BUFAU) who were commissioned by Jackson Civil Engineering Co. Ltd on behalf of the Environment Agency to carry out work intended to improve the flow of the River Sow. It was considered possible that the site would contain evidence relating to the nineteenth century mill, which once stood on the spot, as well as having the potential for providing evidence of earlier phases of activity. The test pitting and trial trench revealed no evidence of any mill structure dating before the 19th century and highlighted the fact that modern culverting works may have destroyed any earlier evidence of culverting or mill activity.

1.0 Introduction

An evaluation was undertaken by Birmingham University Field Archaeology Unit on behalf of Jackson Civil Engineering Co. Ltd, on the site of the disused mill at Mill Bank, Stafford in July and August 2002, in advance of work intended to improve the flow of the River Sow. The evaluation was undertaken on the advice of the Archaeology Section of Stafford Borough Council. The evaluation consisted of archaeological monitoring of four test pits, prior to the archaeological excavation of two trial trenches, located in the same area as Test Pits 1 and 4, along the line of the culvert flowing from the pool in Victoria Park, through the area of the disused mill into the River Sow (Plate 1).

The work was carried out in accordance with a Brief prepared by Stafford Borough Council (Wilkinson 2002) and in accordance with a Written Scheme of Investigation (BUFAU 2002) and the guidelines set down in the Institute of Field Archaeologists *Standards and Guidance for Archaeological Evaluations* (Institute of Field Archaeologists 1999).

2.0 Site Location (Fig. 1)

The site lies at the south end of the historic town of Stafford and to the west of Bridge Street and to the west of Espley's Yard (NGR SK 921 229; Fig.1.). The area targeted for the evaluation was the site of the disused mill, now a feature in an area of public park, and the areas immediately to the east and the west of the mill.

3.0 Archaeological Background

A more detailed archaeological background is provided in the brief (Wilkinson 2002), a summary of which is provided below.

The historic town of Stafford lies in the valley of the River Sow, on its north and east banks. The earliest archaeological evidence of settlement dates to the prehistoric period and continues through the Anglo-Saxon and medieval period to the present day.

Stafford was founded as a *burh* by Aethelflæd in AD. 913 and developed into a commercial centre with a mint (AD. 924-1189), market and pottery manufacturing industry. Stafford became the county town in the eleventh century. The Domesday Survey records Stafford as being walled, with suburbs developing to the north and south. Burgage plots were laid out and monasteries were founded and by the seventeenth century the centre of Stafford was laid out much as it is today.

It is recorded that from 1164-5 the burgesses of Stafford held of the king a mill on the Sow south-west, of the town centre. In 1173 it passed into the possession of Robert de Stafford and remained in the hands of the Stafford family until 1879. In the nineteenth century complaints about flooding caused by the damming of the river at the mill led to the construction of a weir and floodgates. The last structure to grind corn on the site was constructed in 1834 by George Brewster and was demolished in 1957. The mill site was then laid out as an extension to Victoria Park, with two undershot wheels left in position (Wilkinson 2002).

In 1788 a map shows the area between Newport Road and the river, as being devoid of buildings, which may have been due to the ordered clearance of buildings during the Civil War in 1642. The area around Espleys Yard was shown on the Ordnance Survey map of 1881, as containing a garden plot, immediately adjacent of the south bank of the river and running back from Bridge Street. A row of terraced houses running at right angles to the river was also shown to the west of the house and garden. These appear to have been demolished in the first half of the twentieth century.

4.0 Aims

The archaeological work was intended to provide a record of any archaeological deposits or features which might be present below the modern ground surface and to help elucidate further the history and significance of the archaeology of the site as a whole. In particular, evidence relating to the nineteenth century mill and to any surviving structures or deposits of earlier mills was sought. Evidence which might also establish what survives of the culvert that served the watermill was also sought.

5.0 Method

5.1 Test Pitting

Four test pits were excavated along the line of the culvert (Fig. 2) using a combination of machine and hand excavation wherever appropriate. A full record was made of any archaeological deposits and features revealed by the contractors groundworks. Recording was by means of pre-printed *pro-formae* for contexts and features, supplemented by plans, monochrome print and colour slide photography. It was envisaged that the archaeologist would not enter the trenches, therefore section drawings and plans were diagrammatic.

5.2 Trial Trenches

Two evaluation trenches, each 5m in length and 1.8m in width, were excavated along the line of the culvert (Fig. 2). The two trenches were positioned either side of the southernmost waterwheel.

Where appropriate, possible archaeological features were hand excavated to provide information concerning the survival and complexity of feature fills, and to recover artefactual evidence. A detailed context record on individual pro-forma record cards was maintained and all features were photographed using both colour and black and white film. Sections and plans were drawn at a scale of 1:50 or 1:20 as appropriate. Where no archaeological deposits were identified, a record of the stratigraphy was made.

These records form the site archive, which at the time of writing are housed at the Field Archaeology Unit, until final archive deposition arrangements are made.

6.0 Results

6.1 Test Pitting

6.11 *Test Pit 1* (Fig. 2)

Test Pit 1, which measured approximately 2m x 2m, was located inside the southern half of the area of the disused mill, directly over the line of the culvert which runs approximately east to west. The test pit was excavated to a depth of approximately 1.2m at which level excavation ceased due to the presence of the concrete surround (1000) for the pipe which lies in the culvert of the disused mill. Overlying the concrete layer 1000 was a deep layer of brown sand and silt containing building rubble and mixed period finds (1001). This layer had, in turn, been sealed by a band of mixed material containing pieces of tarmac, sand and gravel (1002) which formed the bedding for modern concrete slabs (1003).

6.12 *Test Pit 2* (Figs. 2 & 3, S1; Plates 2 & 3)

Test Pit 2, which measured approximately 1.5m in length by 0.5m in width, was located against the east facing elevation of the modern north to south wall at a point where the top of a modern brick arch was visible just above the ground level (Plate 2). The test pit was excavated to a depth of approximately 0.75m below ground level

(Plate 3). At the base of the test pit the upper horizon of a black, waterlogged deposit with brick and timber inclusions was observed (2000). Further excavation was prevented by flooding and this deposit could not be tested. At the base of the east facing section two squared sandstone blocks (F200), one on top of the other, were encountered (see S1). The lower of the blocks projected outwards from the base of the section and tooling marks were clearly visible on the surface of the upper block. A thick deposit of concrete (2001) butted against the sandstone blocks. Resting on top of the uppermost sandstone block was a small section of earlier brick arch (F201) which had been incorporated into the modern brickwork which formed the lower half of the north to south brick wall (2002). A deep layer of modern, mixed overburden consisting of brown silty soil with brick, glass and metal debris (2003) sealed the black, waterlogged deposit 2000 and lay against the lower half of the north to south wall. Topsoil (2004) sealed the modern overburden 2003.

6.13 *Test Pit 3* (Figs. 2 & 3, S2)

Test Pit 3, which measured approximately 2m x 0.5m, was located 4 metres to the east of Test Pit 2 in the open ground on the north of the culvert. Test Pit 3 was excavated to a depth of approximately 1.4m below ground level at which point flooding made further excavation impossible. A layer of black, waterlogged material with brick and timber inclusions (3000) was encountered at this depth (see S2). Sealing this was a thick layer of modern, mixed overburden consisting of brown, silty soil with brick, glass and metal debris (3001). Topsoil sealed (3002) the modern overburden 3001.

6.14 *Test Pit 4* (Fig. 2)

Test Pit 4, which measured approximately 1.5m x 1.5m, was located to the west of the mill site, on the raised ground immediately behind the southern waterwheel. Test Pit 4 was excavated to a depth of 1.8m at which point excavation was discontinued. The test pit revealed a very deep layer of mixed sandy material with brick, metal, glass and mixed period pottery (4000), overlain by topsoil (4001). Auguring revealed that the top of the concrete surround (4002) for the pipe in the disused culvert was a further 1.2m down.

6.2 The Trial Trenches

6.21 *Trench 1* (Figs. 2 & 4; Plates 4 & 5)

Trench 1 was located to the east of the southern waterwheel and was positioned in order to assess the location, extent and preservation of the culvert running from the pool in Victoria Park to the River Sow. It was also hoped that evidence of the earlier mill culvert may be found. This trench was located in the same place as Test Pit 1. The trench was 5m in length and 1.8m in width and was excavated down through modern build up (5000- 5002), to a depth of 1.24m, at which point the concrete casing (5004) for the culvert pipe was encountered (see S3). The concrete extended up to a red-brick wall, aligned east-west across the trench (Plate 5). This was the northern wall of the culvert (F500), the southern wall could not be located, as this probably remains in the area where a hedge exists, so it was not possible to position the trench in that area. To the north of the culvert wall the trench was excavated to a similar

depth, down to another layer of concrete (5005). The purpose of the concrete layer is unknown, but it was decided not to breach this layer, as this area would not be affected by the groundworks for the enhancement scheme.

The wall found was made of factory made red bricks and was built on sandstone blocks (see Fig 4, S4), which may represent an earlier wall, reused (see S4). In between two of the sandstone blocks was a timber beam, which may have acted as a support for the original roofing of the culvert. It appeared that on either side of the wall the concrete had covered the lower parts of the wall, which probably still exists underneath the concrete. F500 was 0.8m wide and 0.64m high, although it was not possible to see the bottom of the wall, as it was abutted by the concrete casing.

6.22 Trench 2 (Figs. 2 & 5 and Plate 6)

This trench was located in the area of Test Pit 4. It was also 5m long and 1.8m wide. Covering most of the trench, at a depth of approximately 0.5m below the surface, was a layer of reinforced concrete (6001). In the western side of the trench was a break in the concrete, presumably where the concrete had previously been breached (see Plate 6). This area was excavated down to a depth of 2.3m, until the concrete casing (6000) for the culvert pipe was encountered. At the northern end of the trench a void was discovered under the upper layer of concrete. It was possible to see that, although partially destroyed, this was a junction of two culverts. Three walls were visible, the northern and southern wall of a culvert in alignment with the culvert seen in Test Pit 2 and the northern wall of the culvert seen in Trial Trench 1. It was not possible to reveal the southern wall of the culvert seen in Trench 1, as it probably lay underneath a hedge and a footpath. There was no evidence that 6001 encased a brick vaulted culvert roof in the southern portion of the trench, however, it may be that concrete was poured on top of a culvert roof in order to strengthen it. It is also possible that the culvert roof had been destroyed during the installation of the pipe, which exists there today. It was also not possible to determine whether the walls found in Trench 2 were built on top of sandstone blocks.

7.0 Discussion

In general, the test pits and trenches revealed that areas both within the confines of the modern pastiche walls, corresponding roughly with the position of the earlier mill building, and outside of those confines, have been subjected to considerable remodelling in the form of dumping and build up activities, likely to have involved the importation of material.

Test Pit 1, which was located inside the area of the mill and directly over the course of the current open culvert, showed that the modern pipe in the culvert had been sealed by the material used to build up the ground level. This is likely to indicate that the laying of the pipe and the raising of the ground level inside the pastiche walls were part of a single phase of activity carried out when the site of the disused mill was made into a landscaped feature in the public park. Likewise, Test Pit 4 located immediately to the west of the southern waterwheel revealed a considerable depth of build up material overlying the pipe in the culvert.

Test Pit 2, located against the east facing elevation of the modern north to south brick wall, revealed the presence of two worked sandstone blocks and a section of earlier brick arch which appeared to be resting on top of the upper block. It was not possible to ascertain whether further sandstone blocks were *in situ* below those exposed in section. The sandstone blocks and partial brick arch could represent preserved elements of the nineteenth century mill. Alternatively, they may indicate separate phases of building activity wherein the partially preserved arch represented a later brick build onto an earlier sandstone structure. If so, this may be evidence of a succession of mill buildings and/or building alterations belonging to different periods. The black, waterlogged layer at the bottom of the test pit could not be tested sufficiently to ascertain its depth or retrieve secure dating evidence. It was also not possible to determine the relationship between this layer and the sandstone blocks at the base of the section. Dating this layer and establishing its stratigraphic relationship with the sandstone blocks could provide a *terminus post quem* or *terminus ante quem* for the partial sandstone structure. The concrete butting against the sandstone blocks appeared to have been used as infill and as a base for the modern brickwork above. It seems likely, therefore that the sandstone blocks and partial section of brick arch mark the position of an earlier culvert. It could be, therefore, that the latter culvert and the culvert now in use were located within the cut for the original culvert which could have been very wide in its earlier stages.

Test Pits 2 and 3 revealed that a deep layer of build up material sealed the black waterlogged deposit. It seems probable that the open area encompassed by the mill site, open culvert and river has been subjected to a considerable increase in ground level, possibly as a measure against flooding. The natural subsoil was not exposed in either of these test pits and is likely to be at a depth below the current level of the river.

Trench 1 confirmed the evidence found by Test Pit 1, that the pipe through, which the culvert now flows, is underneath modern build up layers and the excavation of Trench 1 found that the pipe was encased in concrete. The existence of the former culvert wall (F500) suggests that the nineteenth century culverts walls were not destroyed and were reused when the remodelling took place, but the pipe had been encased with concrete, which probably fills the entire area between the north and south culvert walls. No evidence of a former brick vaulted roof was found in this trench.

Trench 2 was similar to Trench 1, in that the pipe in this area was also encased in concrete. An upper layer of concrete had previously been breached for unknown reasons, possibly for maintenance of the pipe. It may be possible that the remains of a culvert roof survive underneath and attached to this upper layer of concrete, but if this was the case, it would only be for a short distance, perhaps up to 3m, as the remodelling of the area is likely to have caused disturbance to it. It would be almost impossible to reveal the culvert roof, even if it does survive under the concrete, because it would be attached to the concrete and would break up as soon as the concrete was broken. The walls found in the northern section of the trench appear to remain, as this area has not been subjected to the installation of a pipe like the southern section has.

The test pitting provided evidence, albeit of an exiguous nature, for earlier phases of building activity on the mill site and perhaps for the earlier culvert. In the latter

respect, further investigation of the black waterlogged deposit observed in Test Pits 2 and 3 could warrant further investigation. However, the demolition of the nineteenth century mill in the 1950s and later landscape remodelling for the park and for flood control (most likely to have comprised levelling of ground as well as dumping of imported build-up material), may have scoured out or, at the very least, heavily truncated any archaeological deposits or features in the area.

8.0 Acknowledgements

The test pit monitoring was carried out by Helen Martin. The evaluation was carried out by Helen Martin and Andy Walsh and supervised by Charlotte Neilson. This report was written by Helen Martin and Charlotte Neilson and edited by Gary Coates, who also managed the project. The illustrations were prepared by Nigel Dodds and Bryony Ryder.

Thanks are due to the Site Manager, Paul Watson, and his staff of Jackson Civil Engineering Co. Ltd and W.S. Atkins Consultants Ltd for their help and co-operation.

David Wilkinson, Borough Archaeologist, monitored the project on behalf of Stafford Borough Council.

9.0 References

B.U.F.A.U 2002 *River Sow Improvement Scheme, Stafford, Staffordshire 2002. Written Scheme of Investigation for Archaeological Field Evaluation*

Wilkinson, D. 2002 *Brief for an archaeological evaluation in Stafford as part of the River Sow improvement.*

Institute of Field Archaeologists *Standards and Guidance for Archaeological Evaluations* (Institute of Field Archaeologists 1999).

Figures



Fig.1

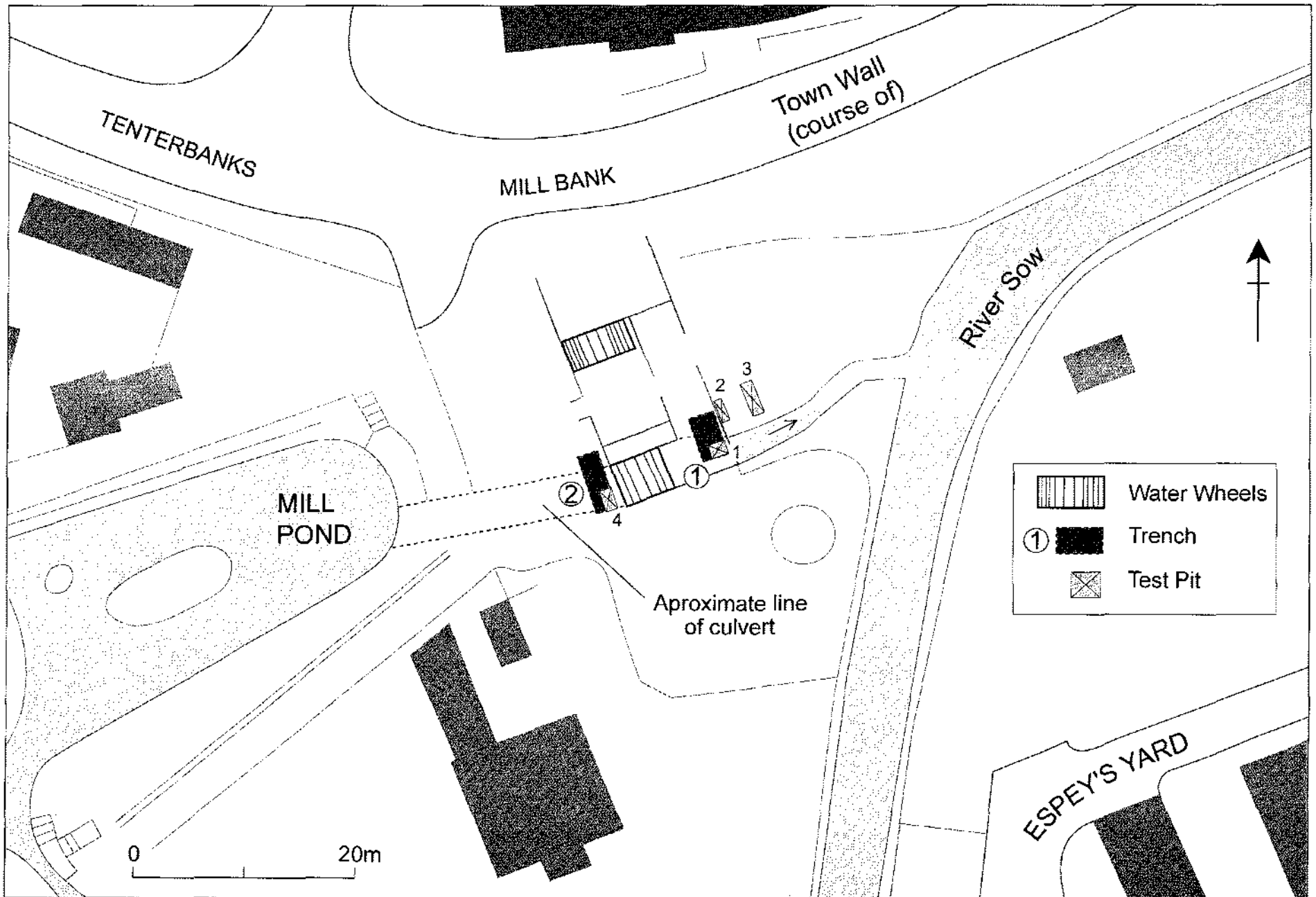
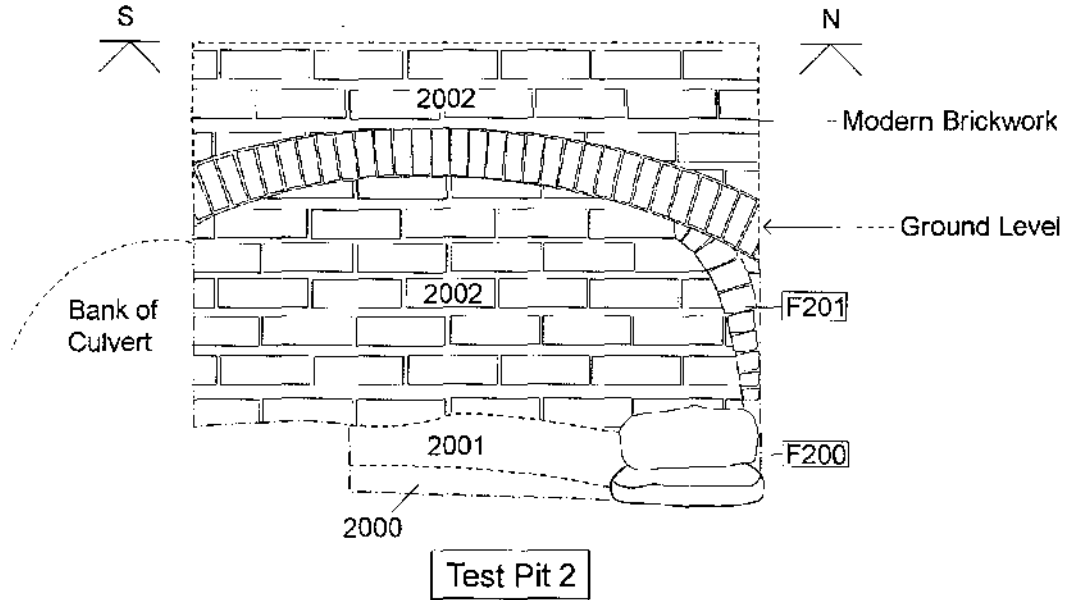


Fig.2

DIAGRAMMATIC SECTIONS

S1



S2

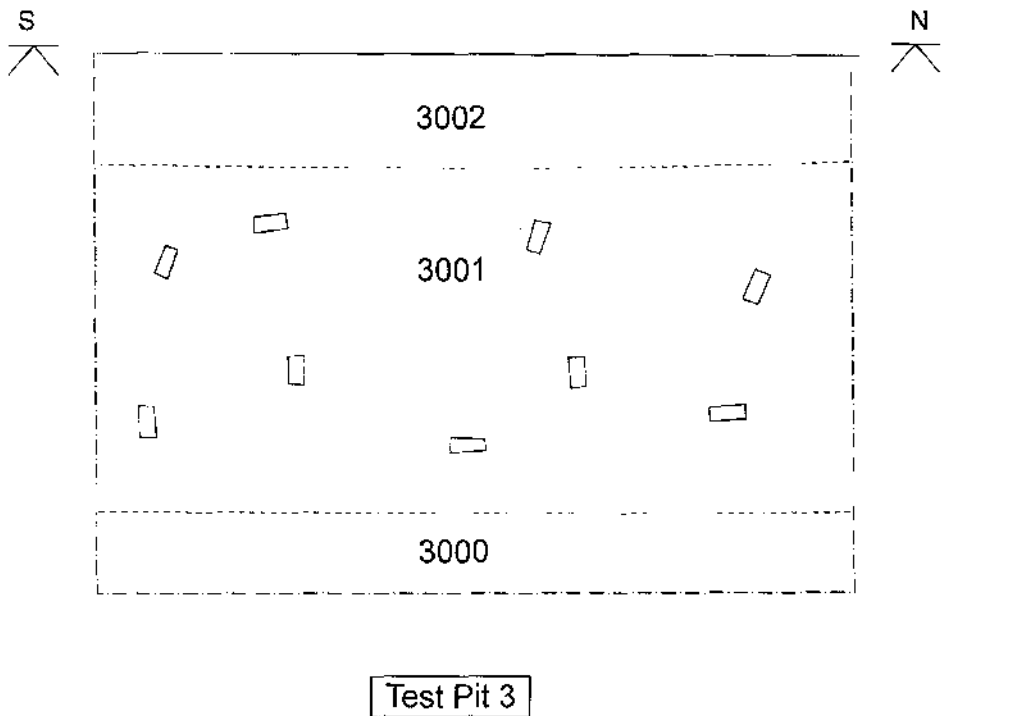
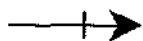
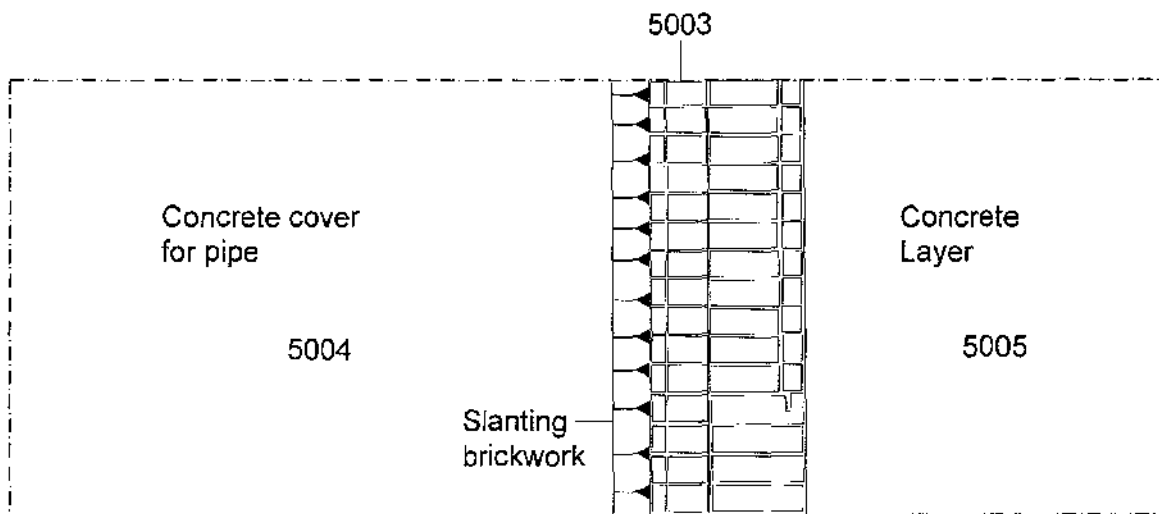


Fig.3



Trench 1 Plan



0 1m

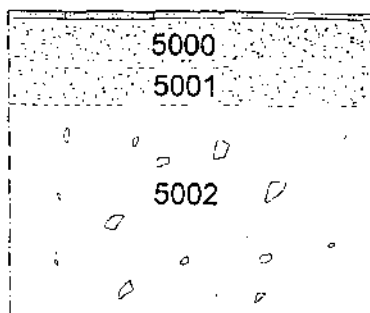
Culvert wall

Trench 1 Sections

S3

S

N



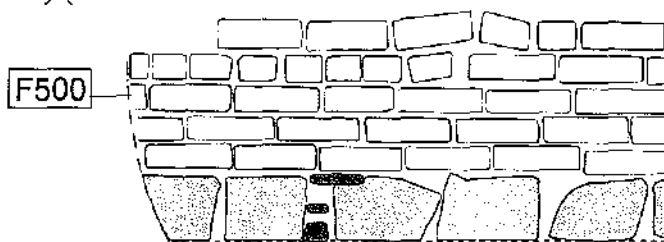
Paving slabs

Concrete 5004

S4

E

W



Timber beam

5005 Concrete layer

0 1m

 Sandstone blocks

Fig.4

Trench 2 Plan

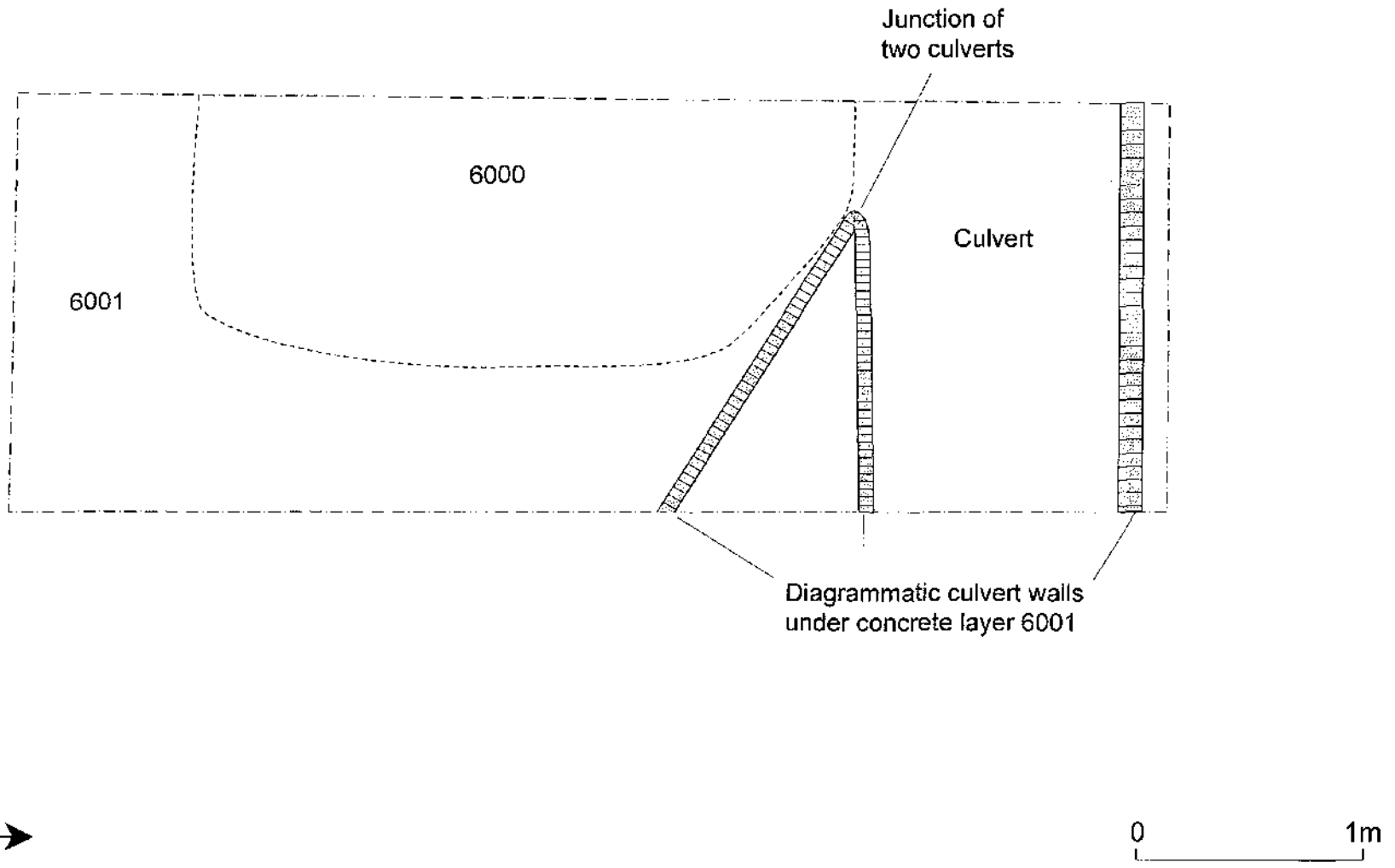


Fig.5

Plates



Plate 1.

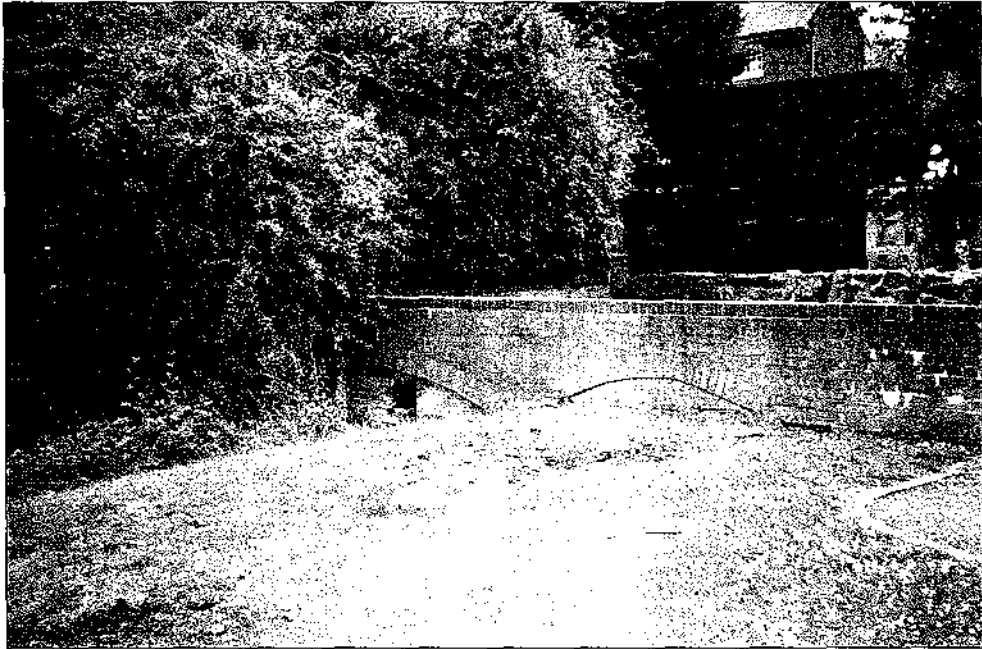


Plate 2.



Plate 3.

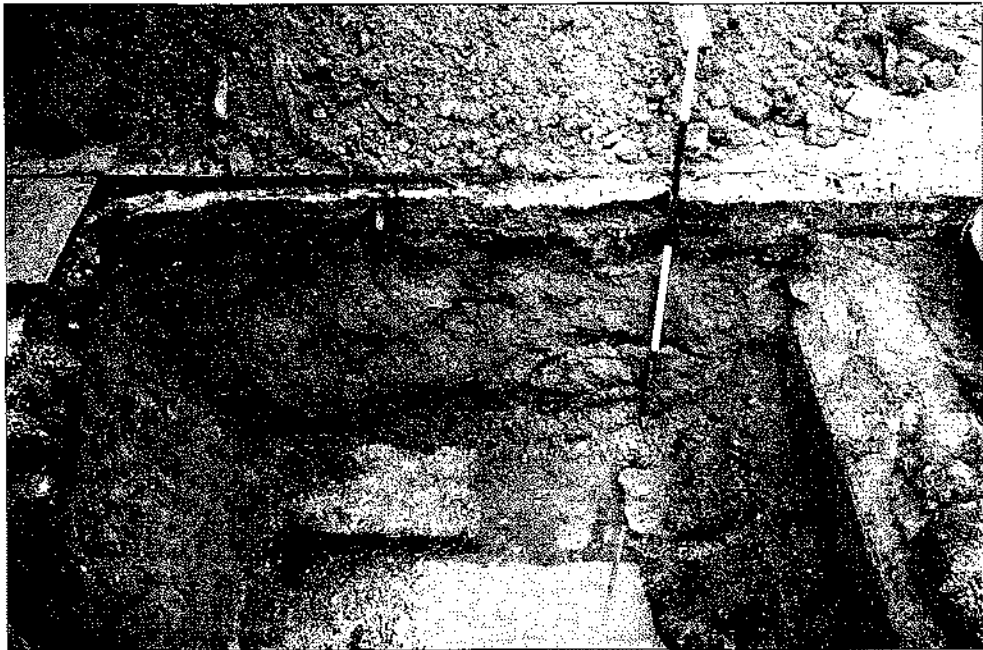


Plate 4.

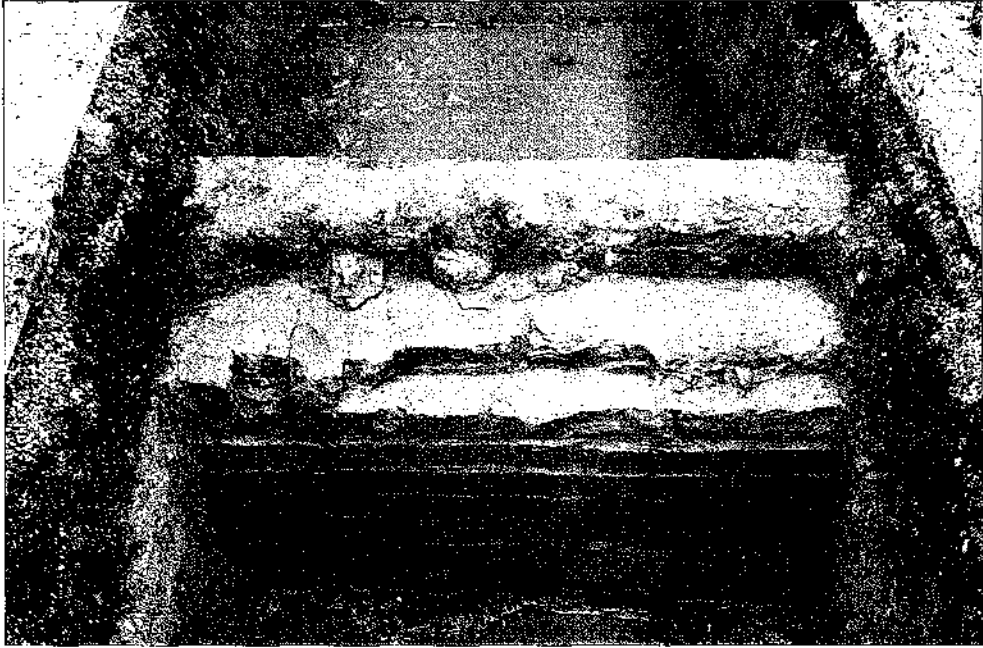


Plate 5.



Plate 6.